



## Member Highlight

### Steven Pinker (USA)

#### Tell Us About Yourself

I'm a professor of psychology at Harvard, interested in perception, language, reasoning, and social relations. My new book is called "*When Everyone Knows That Everyone Knows...: Common Knowledge and the Mysteries of Money, Power, and Everyday Life*".

But my interest in 3D goes back to my thesis, on how people visualize 3D space. It raises a paradox. Imagine standing between railroad tracks, looking toward the horizon. Obviously your mental image isn't 2D: you can see the tracks stretch into the distance. But it isn't really 3D either: you also see the tracks converging in perspective, whereas in real 3D space the tracks are parallel. I proposed that mental imagery, like vision itself, is "2 1/2-D" (stealing the term from AI vision research). It's a bit like what stereo photographers call a depth map: the pixels are laid out in two dimensions, but they contain information about the third dimension.



*"Thistle bud", Leica M11, Stemar + Elmar closeup lens*



*"Purple Tulip", Nikon N90, 105 macro lens, Velvia film*

## How did you discover 3D?

One day in the 90s I passed a bookstore window and gazed upon a Magic Eye autostereogram. I was dumbfounded. I knew how random-dot stereograms worked, but they required anaglyph or polarizer glasses. I couldn't for the life of me figure out how those dinosaurs popped out to the naked eyes. I decided I did not deserve to call myself a cognitive psychologist until I could explain how they work. I found the paper by the guy who invented them, Christopher Tyler, and in my book *How the Mind Works*, I laid out a step-by-step explanation of stereo vision, culminating in autostereograms. I've taught this to my introductory psychology students ever since (though they don't seem to find it as fascinating as I do.)

I had long been an amateur photographer, shooting landscapes, wildlife, and close-ups. So I applied my new interest in stereo vision and began taking macro stereo slides of flowers.

## What 3D equipment do you use?

For tabletop close-ups, I use a focusing rail and a Nikon 105mm macro lens with an extension tube. The combination offers 1:1 magnification, and the lens stops down to f/32, providing the huge depth of field needed in that range. (Unfortunately, this also yields razor-sharp dust spots on the sensor, but Luminar Neo is pretty good at automatically removing them.)

I'm that eccentric breed of photographer who shoots Leica, and a few years ago got a rare Stemar stereo lens, together with a prism separator attachment ("beam-splitter") for more distant subjects. For outdoor macro shots, I bought an extra hood and epoxied on a step-up ring which accepts a close-up lens. I also bought a similar gadget made by Zeiss Ikon, the Stereotar, which comes with dedicated close-up lenses. Both take side-by-side, crossed, portrait-orientation shots on a single frame. Stereo Photo Maker Pro does the rest.

For walkaround photography, I do the two-step with my regular Leica lenses, and also use twinned Sony RX100 cameras, and an Acer Eyes.



*"Frog on Lily Pad", Leica M11, Stemar + Elmar closeup lens*



*“Antelope Valley Slot Canyon”, Leica M11, 28mm f/2.8, sequential*



*“Grand Canyon North Rim”, Leica M11, 28mm f/2.8, sequential*

### **What kind of 3D pictures do you take?**

My favorite are flower ultra close-ups, as if from a bug’s-eye view. I also take stereo close-ups of small animals like insects, frogs, birds, and crabs. And I take landscape and travel shots.

### **What other 3D activities occupy your time?**

Trying out different viewing technologies—Holmes, View-master, anaglyph, Google Cardboard, prism and mirror glasses. Collecting books of stereo photos: Hollywood, bugs, vintage nudes, animal skeletons, historic scenes. Watching 3D films when they come to local theaters: Dial “M” for Murder, Kiss Me Kate, nature documentaries, and my favorite, U2 3D. And I found a set of stereo Kodachrome slides of my parents’ wedding! (They were featured in the “50s Flavored Find” feature of *Stereo World*, July 2024.) It’s as if their 20-something selves had been reincarnated.

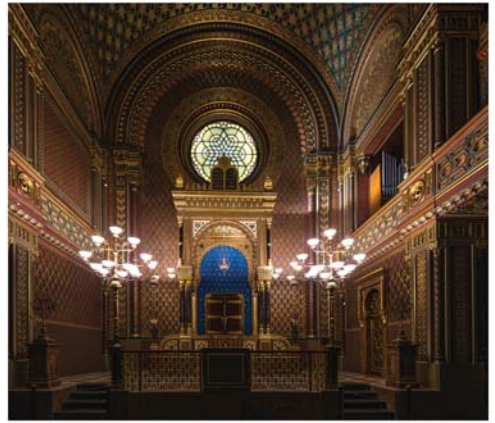
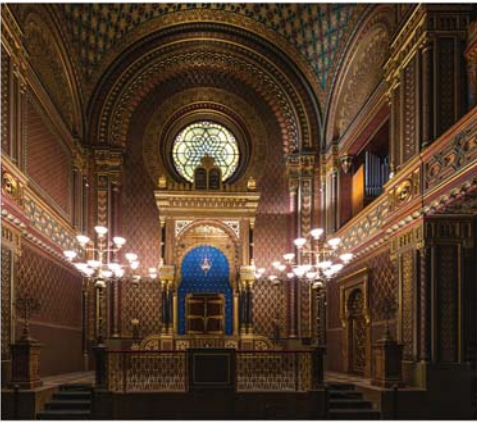
### **What other interests do you have?**

Bicycling, kayaking, city walks, reading.

### **What are your thoughts about the future of 3D?**

Glasses-free, eye-tracking micro-lenticular displays. I’ve tried them all; my favorite is the large ProMa 27NGS, which is 2D/3D switchable and needs no special software or hardware.





*“Spanish Synagogue Sanctuary, Prague” Leica M11, 16-18-21mm f/4, sequential*



*“Sculpture in St Vitus Cathedral, Prague”, Leica M11, Stemar + prism attachment*



*“Wife Rebecca Goldstein chasing grandson Solly in tidepool, Maui”, Leica M11, Stemar + prism attachment*



*“Forte Belevedere from Boboli Garden, Florence”, Leica M11, 28mm f/2.8, sequential*



*“Sausage Vendor, Prague”, Leica M11, Stemar + prism attachment*



*“Happy Family”, Leica M11, Stemar + prism attachment*

